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## High-tech rivalry called bad for U.S.

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Innovation, along with the development and implementation of technology, are the most sensitive weapons we have in the U.S. battle to maintain high levels of productivity, according to William C. Norris, chairman and chief executive officer of Control Data Corp.

Norris, who founded Control Data in 1957, spoke today at the University of San Diego before the White House Conference on Productivity.

Norris blamed lagging productivity in the United States on an erosion in leadership in technological fields.

"Broadly speaking," he said, "our overseas competitors have expanded research and development, increased the number of trained scientific and technical personnel, reduced the cost of capital for industry and fostered growth in targeted areas."

While foreign governments regularly assist their own industries — Norris pointed out that microelectronics and computers are the most highly subsidized Japanese industries — he called upon U.S. government, industry and academic leaders to sponsor "vast increases in technological cooperation" in order to remain competitive.

Norris has long been a proponent of cooperation between industry competitors in basic research. He was the driving force in a 20-year effort to create the Microelectronics and Computer Technology Corp. an 11-member consortium for computer research which this spring chose the University of Texas at Austin over San Diego for its headquarters.

Cooperative research ventures like MCC are becoming more common, Norris pointed out, despite federal antitrust laws which discourage them.

In addition to MCC, the Semiconductor Industry Association has created the Semiconductor Research Corp. and the Microelectronics and Information Sciences Center has been founded at the University of Minnesota as the result of university and industry interaction.

"The use of basic knowledge by one party should never preclude its use by another," Norris explained. "For every large corporation to rediscover what others have already learned represents waste of the most pernicious sort."

MCC, a model for other cooperative ventures, will undertake projects which will stretch beyond the state of the art in computers, Norris said. The consortium has been structured so not all shareholders are required to participate in each project, though each must participate in at least one.

"MCC projects will be staffed to a considerable extent by personnel from shareholder companies," Norris noted. "At the completion of a project, these borrowed personnel will return to their respective companies. This flow of talent to and from shareholder companies is key to the success of MCC projects."

In addition, he said, the process facilitates the transfer of technologies to participating companies.

"Management of cooperative programs is also more difficult because successful

and wisdom in resolving conflicting views — but decisions are invariably better," he said.

Norris explained that American competitiveness and the relentless drive for higher earnings stand in the way of such ventures, but top level management can be re-educated to the benefits of working together on new technology.

Innovation and productivity alone are not the answers to U.S. economic problems, Norris warned.

"The importance of addressing job creation simultaneously with improving productivity can hardly be overemphasized," he added.

"Unfortunately, there is a growing propensity in our country to concentrate more on developing technology than on applying it," Norris said. "Largely because the task of creating knowledge is organizationally less complex and often less costly than the task of using it to satisfy the needs of the marketplace. Hence, there are vast amounts of unused and underused technologies in the laboratories of government, academia and business."

The Control Data chairman called for joint business, community and government efforts to nurture the small and new businesses which frequently are responsible for putting theoretical technology to work.

Norris also has been involved in the development of programs in Minnesota for transferring technology from large companies to small ones, and for bringing technological education to urban and rural areas

### Session analyzes productivity issue

Productivity, defined as output per hour of work, has varied during the history of this country, but according to the chairman of the White House Preparatory Conference on Productivity which meets here today and tomorrow, gains of about 3 percent per year have been common since World War II.

L. William Seidman, dean of the college of business at Arizona State University, will lead the conference which is expected to attract more than 200 representatives from government, business and education.

In the past several years, U.S. productivity has dropped to about zero, partly because of the impact of high inflation. Because inflation is down, productivity is again rising, though economic observers fear the transition from a manufacturing to a service society may permanently impair the nation's productivity, Seidman said.

The USD conference is the third of four being held around the country to lay the groundwork for a final White House Productivity Conference to be held in Washington, D.C., on September 22 and 23.

Despite a slowdown, Seidman pointed out, the United States is still the most productive nation in the world.